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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,303	08/16/2001	Jui-Lung Chen	NAUP0303USA	8957

27765 7590 06/03/2004

NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE)  
P.O. BOX 506  
MERRIFIELD, VA 22116

EXAMINER

LUU, AN T

ART UNIT PAPER NUMBER

2816

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/682,303

Applicant(s)

CHEN ET AL

Examiner

An T. Luu

Art Unit

2816

*Am*

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-14 and 16-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-14 and 16-24 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-9 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

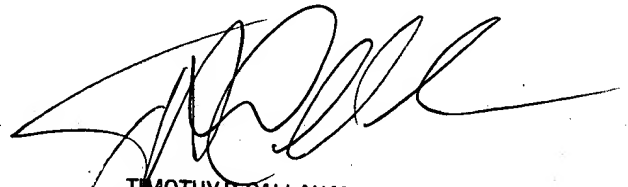
## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

An T. Luu  
5-31-04 *AL*



TIMOTHY P. CALLAHAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

### DETAILED ACTION

Applicant's Amendment filed on 3-30-04 has been received and entered in the case. The rejections set forth in the previous Office Action are partially maintained as indicated below.

#### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Limitation "a predetermined value", line 5 of claim 10, appears to be referred to limitation "a predetermined initial value", lines 11-12 of claim 1.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by the Wu et al. reference (U.S. Patent 6,100,736).

Wu discloses in figure 1 a delay locked circuit for generating a second clock CLKCMP according to a first clock CLKSRC comprising a comparator 110 for determining if corresponding periods of the first clock and the second clock are synchronized and generating a

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corresponding comparison signal (U or D); a delayer 130 electrically connected to the comparator for delaying the first clock so as to change a delay time between the corresponding periods of the first clock and the second clock; and a controller 120 to control the delay locked circuit; wherein the controller uses the delayer to perform a correcting process to increase or decrease the delay time between the corresponding periods of the first clock and the second clock by a correction interval, wherein a subsequent correction interval of a subsequent correcting process is substantially half of a previous correction interval of a previous correcting process as required by claim 1. It is noted that col. 5, lines 61-67, and col. 6, line 66 to col. 7, line 4, indicate controller selectively activating one or more delay elements within a delay chain upon receiving a control signal from controller 120 and that there is one or more delay elements within the activated chain to be deactivated in the next clock cycle. Therefore, a subsequent correction interval (delay time) of a subsequent correcting process is less than a previous correction interval of a previous correcting process. Further, Wu discloses in column 4, line 66 to column 5, line 6, a predetermined initial value being four delay elements of variable delay line in which each delay element provides from 0.1nsec to 0.25nsec.

As to claims 2 and 3, figure 1 and claim 1 of Wu disclose an apparatus to carry out steps of determining if the first clock and the second clock are synchronized and generating a corresponding comparison result (function of phase comparator); and the delay time between the corresponding periods of the first clock and the second clock for the subsequent correcting process is increased or decreased by the subsequent correction interval according to the comparison result (function of shift register).

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As to claim 5, figure 1 discloses a delay 130 for delaying the first clock in order to change the delay time between the corresponding periods of the second clock and the first clock.

As to claim 6, figure 5A discloses a delay line 500 comprising a plurality of delay units (400's).

As to claims 7 and 8, figure 1 discloses an apparatus comprising a comparator 110 coupled to delay line 130 to determine if the corresponding periods of the first clock and the second clock are synchronized and generating a corresponding comparison result; wherein the delay time between the corresponding periods of the first clock and the second clock is increased or decreased by the correction interval according to the comparison result.

As to claim 9, figure 1 discloses a shift register 120 to store information about the correction interval.

#### *Allowable Subject Matter*

5. Claims 11-14 and 16-23 are allowed.
6. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose an apparatus and method thereof comprising elements being configured as recited in claims. Specifically, none of the prior art teaches, among other things, the following limitations:

- the controller terminates the correcting process if the correction interval is smaller than a predetermined value as required by claims 10, 11 and 16.

### *Conclusion*

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to An T. Luu whose telephone number is 571-272-1746. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.